

REMARKS

This is in response to the Examiner's comments set forth in the Office Action of August 19, 2010. Claims 1, and 3-11 are currently pending.

The Office Action

Claim 1-11 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-2 and 11 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over EP 612562.

Claims 1-4, and 6-11 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over FR 2627668.

Claims 1-4, and 6-11 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over WO 95/05087.

Claims 1-4, 7-9, and 11 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,705,216 to Tyson (hereinafter "Tyson").

Claims 1-4, 7-9, and 11 are rejected under 35 U.S.C. § 102(a) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 4,136,207 to Bender (hereinafter "Bender").

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over FR 2627668 or WO95/05087 or Tyson or Bender in view of U.S. Patent No. 4,431,675 to Schroeder et al. (hereinafter "Schroeder") and U.S. Patent No. 4,106,991 to Markussen et al. (hereinafter "Markussen").

§112 Rejections

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Particularly, the Examiner refers to claim 1, line 4 and submits that both "substantially" and "reduced microbial burden" are of indeterminate scope. Applicant submits that the term "substantially" and "reduced microbial burden" have been removed from claim 1. Additionally, with regard to the Examiner's assertion that "majority" is indefinite, Applicant respectfully

submits that majority is defined as “a number of percentage equaling more than half of a total”. (Merriam-Webster’s Dictionary). Applicant submits that this is a commonly known and accepted definition, and therefore it is uncertain as to how this can mean anything other than over 50%. Accordingly, Applicant submits that the term “majority” is not indefinite and means exactly what it is commonly known and defined as. Finally, with regard to the usage of “adapted”, Applicant has amended claim 1 to recite that the additive is **capable of** limiting food intake during ad-libitum feeding, which is properly defined in the specification.

§102/§103 Rejections

Claims 1-2 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 612562 (‘562). Specifically, the Examiner submits that ‘562 teaches fibrillated lignocellulose and submits that the claims include intended use language and properties of the additive that do not lend to the patentability of an old and known product. Applicants respectfully traverse.

As amended, claim 1 recites an animal food additive for economically useful animals which are pregnant, lactating, being fattened or raised, the additive comprising a crude fiber concentrate of fibrillated lignocelluloses that has a crude fiber content according to the Weender analysis of over 60% and an increased swelling capacity, such that the a majority of the swelling is carried out while the food is still found in the stomach, wherein the additive has a water intake capacity of 500-800% and is capable of limiting food intake during ad-libitum feeding. The Examiner maintains that the Office does not have the resources to prepare and obtain the fibers and perform a Weender analysis or observe the swelling capacity within the stomach of an animal. Applicant respectfully submits, however, that the Weedner feed analysis is a standard method for the determination of ingredients in animal feed, including crude ash, crude fiber, crude protein, crude fat and nitrogen-free extractives. The crude fiber content is determined by treating the feed with dilute acids and alkalis to the amount of indigestible material that remains. Accordingly, the Weender analysis simply provides a method for determining the crude fiber content of animal feed. As illustrated in the chart below, most lignocelluloses have a crude fiber content below 60%, which is the case for instance with “potato pulp” and “beet pulp” mentioned as the starting material in ‘562 (see col. 3, lines 43-45). The chart indicates that potato pulp has no crude fiber percentage and beet pulp has a percentage much lower than 60% (19.8%).



Fiber characterization in selected fibrous feed ingredients^a

Feed Ingredient	CF (%)	NDF (%)	ADF (%)	TDF (%)	SDF (%)	IDF (%)
Corn	2.6	9.0	3.0	6.4	1.7	4.7
SBM 44 % CP	7.0	13.3	9.4	33.1	1.6	31.5
SBM 47 % CP	3.0	8.9	5.4	27.6	1.4	26.2
Alfalfa	26.2	45.0	35.0	56.7	4.2	52.4
Oat Bran	-	19.2	-	15.8	7.5	8.3
DDGS	9.9	44.0	18.0	42.9	0.7	42.2
Oat Straw	40.5	70.0	47.0	76.6	2.2	74.4
Soybean Hulls	40.1	67.0	50.0	83.9	8.4	75.5
Wheat Straw	41.6	85.0	54.0	71.5	0.5	71.0
Corn Stalk	34.4	67.0	39.0	77.3	2.9	74.4
S.Beet Pulp	19.8	54.0	33.0	65.6	11.7	53.9
Potato Pulp	-	-	-	33.3	11.0	22.3
ARBOCEL ^b	67.0	84.8	70.8	88.8	-	88.8

^aSources: NRC (1998); NRC (1988); Dale (1998); and U of M laboratory analysis^bfresh mass analysis

Although the Examiner maintains that Applicant has described the product with more physical properties than the Office has resources to measure, Applicant submits that crude fiber content is a measureable and quantitative property of animal feed that may be determined by a number of methods, the Weender analysis being one such method. Therefore, this property may be compared to the references by comparing the crude fiber content of the materials disclosed in the references to that presently claimed, and there is no particular need for the Office to perform the Weender analysis. Applicant refers to the Weender analysis in the claims solely to be perfectly clear as to how the crude fiber content was calculated. The chart provided above clearly identifies the crude fiber content of various feed ingredients, which illustrates that the fibrillated cellulose of '562 does not inherently possess the crude fiber content presently claimed. The present claims identify a benefit found when increasing this crude fiber content above 60%, which is not disclosed or suggested in the references.

Moreover, '562 teaches an oil sorbent that is required to be highly oil absorptive, but **not water-absorptive**. (Col. 3, lines 45-46). The material is heat treated to a high temperature such that the water absorption is small and oil absorption is relatively large. In contrast, the subject claims are directed to an animal food additive with **a high water intake capacity** to limit food intake due to a feeling of being full. Therefore, '562 teaches the exact opposite of the presently

claimed 500-800% water intake capacity, namely, that the oil sorbent material is not water absorptive. The Examiner argues that the water sorption capacity of the products is not measurable by the Office. However, Applicant submits that this reasoning is improper since no measurement is necessary because '562 explicitly teaches that the water absorption is small and oil absorption is high, which is a clear teaching away from the present claims.

Claims 1-4 and 6-11 under 35 U.S.C. 102(b) are also rejected as being anticipated by, or in the alternative, under 103(a) as being obvious over FR 2627668, claims 1-4 and 6-11 under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 103(a) as being obvious over WO 95/05087, claims 1-4, 7-9, and 11 under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 103(a) as being obvious over Tyson (U.S. 5,705,216), and claims 1-4, 7-9, and 11 under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 103(a) as being obvious over Bender (U.S. 4,136,207). In each rejection, the Examiner argues that the claims recite properties of an old and known product that do not distinguish the product because such properties would be inherent to the product. Particularly, it is asserted that intended use language, such as limiting food intake during ad libitum feeding, does not lend patentability to an old and known product. Applicants respectfully traverse.

Particularly, as demonstrated in the above chart, the position that simply because these references disclose lignocellulose fibers, the claimed properties must be inherent, is without merit. The crude fiber content varies dramatically among feed ingredients, and the present claims are directed to the specific benefit found when the crude fiber content is over 60%. FR 2627668 teaches that the lignocellulose material may be wood chips, straw, or seed husks. According to the chart provided above, both straw and seed husks have a crude fiber content of between 40-41%, which is significantly lower than 60% as claimed. Since both straw and seed husks have about 40% crude fiber content, it is not likely that wood chips have a crude fiber content that varies much from this, and there is certainly no teaching or suggestion to use a crude fiber content over 60% as presently claimed. Similarly, WO'95/05087 recites that the lignocellulose is derived from grasses, hay, and other non-woody materials, which according to the chat, alfalfa has a crude fiber content of 26.2%. Tyson also identifies a variety of plant materials for use as starting materials, and identifies many of the materials on the chart (CF % below 60); however, there is no teaching or slight suggest of providing a material with an increased crude fiber content for the benefits set forth in the present application. Finally, Bender also fails to teach or

suggest implementing a crude fiber content over 60%, as presently claimed and there is no teaching or slight suggestion for one skilled in the art to do so.

Applicant submits that in each of the above rejections, it appears that the Examiner is failing to consider the physical properties of the claimed additive and instead simply assumes the properties are inherent in any fibrillated lignocellulose, which is not the case. The present application explains that the high crude fiber content allows for a reduction of energy concentration in animal food, which is not possible in the cited references.

For at least the aforementioned reasons, the present claims distinguish patentably over the references of record. As such, withdrawal of the rejections and allowance of the claims is respectfully requested.

CONCLUSION

For the reasons detailed above, it is submitted all remaining claims are now in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

☒ Remaining Claims, as delineated below:

(1) For	(2) Claims remaining after amendment less highest Number previously paid for		(3) Number Extra
Total Claims	10	- 20 =	0
Independent Claims	1	- 3 =	0

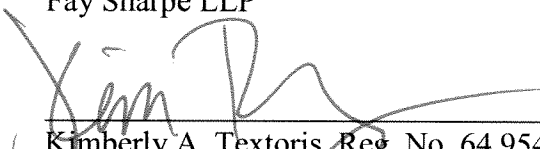
☒ This is an authorization under 37 CFR 1.136(a)(3) to treat any concurrent or future reply, requiring a petition for extension of time, as incorporating a petition for the appropriate extension of time.

☒ The Commissioner is hereby authorized to charge any filing or prosecution fees which may be required, under 37 CFR 1.16, 1.17, and 1.21 (but not 1.18), or to credit any overpayment, to Deposit Account 06-0308.

For at least the foregoing reasons, and in light of the claim amendments provided herein, Applicant respectfully requests that the Examiner reconsider all objections and rejections and withdraw the same. As such, it is respectfully submitted that the subject application is now in condition for allowance. Should the Examiner wish to discuss the foregoing, a telephone call to the undersigned attorney would be welcome.

Respectfully submitted,

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February 21, 2011
Date